DATASHEET
FUJITSU PRIMERGY RX200 S6 DUAL SOCKET 1 U RACK SERVER

MAXIMUM PRODUCTIVITY IN A 1U HOUSING

The PRIMERGY RX Rack Server family is the perfect platform to form dynamic infrastructures for your business processes today and in the coming decade. You will thus benefit several times over from our recognized experience in optimized data center technology and our innovative strength in developing energy-efficient and cost/performance-optimized rack systems for universal use. PRIMERGY rack servers, built upon industry standards, focus from a functional viewpoint on core features: energy efficiency, reliability, optimized for virtualization, ease of operation and maintenance, flexibility for your future. And thus they notably meet your requirements for outstanding cost efficiency. Optimal operating costs and long-term usability comply with the IT quality required by your customers. Our responsibility goes way beyond the hardware as our tailor-made service packages mean that you can rely on the best support for your IT during its whole lifecycle.

PRIMERGY RX200 S6

The PRIIMERGY RX200 S6 for maximum productivity - if efficiency is the key decision factor. More performance, higher expandability and greater reliability packed in a flat rack housing of only 1U – with a significantly improved performance / power consumption ratio. The innovative PRIMERGY Cool-safe™ system design provides the right answers on the “burning” issues energy consumption and cooling in data centers. The result: sustainable high server performance, long life components, fewer data center cooling requirements. The top performance of the new Intel® Xeon® processor generation can be fully exploited in high-level memory and hard disk configurations.

FEATURES AND BENEFITS

MAIN FEATURES	BENEFITS
DESIGNED FOR HIGHEST PERFORMANCE NEEDS	
■ Intel® Xeon® Processor 5600 Series with up to 6 core operation (up to 12 threads per socket with Hyper Threading), 12 MB shared cache, Internal Memory Management Unit (3 channels of DDR3 memory) and Intel® Turbo Boost Optimization	■ Highest performance for maximum productivity in a small form factor
DESIGNED FOR HIGHEST ENERGY EFFICIENCY	
■ Highly efficient power supply units with 92% efficiency and Cool-safe™ system design	■ Energy-efficient operations reduce stress not only for the data center cooling system but also for the budget
DESIGNED FOR EASY SERVICEABILITY	
■ Integrated customer self-service module, switchable service LAN and illuminated green control points on hot-plug components	■ Cost-reducing and pro-active customer self-service with a focus on ease of use
DESIGNED FOR HIGHEST REALIABILITY	
■ Hot-plug and redundant fans and power supplies, enhanced memory protection levels, modular RAID 5/6 option	■ System reliability and highly available data for each application scenario
SOLUTIONS FOR SERVER MANAGEMENT	
■ ServerView Suite - Proven tools for the efficient management of physical and virtual resources throughout the entire lifecycle: perfect installation - stable operations – secure updates - exact (remote) maintenance – easy integration in specific corporate management solutions	■ The key to high-level IT benefits and reduced operational and service costs: greater reliability, lower downtimes and improved service quality

TECHNICAL DETAILS

PRIMERGY RX200 S6		
Housing type	Rack	Rack
Hard disk architecture	6x 2.5" SAS/SATA/SSD	8x 2.5" SAS/SATA/SSD
MAINBOARD		
Mainboard type	D 3031	
Chipset	Intel® 5500	
Processor quantity and type	1 - 2 x Intel® Xeon® processor E5500 series / Intel® Xeon® processor E5600 series / Intel® Xeon® processor L5600 series / Intel® Xeon® processor X5600 series	
PROCESSOR	Intel® Xeon® processor E5503 (2C/2T, 2.00 GHz, SLC: 4 x 256 KB, TLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)	
	Intel® Xeon® processor E5506 (4C/4T, 2.13 GHz, SLC: 4 x 256 KB, TLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)	
	Intel® Xeon® processor E5507 (4C/4T, 2.26 GHz, SLC: 4 x 256 KB, TLC: 4 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 80 W)	
	Intel® Xeon® processor E5620 (4C/8T, 2.40 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)	
	Intel® Xeon® processor E5630 (4C/8T, 2.53 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)	
	Intel® Xeon® processor E5640 (4C/8T, 2.66 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 80 W)	
	Intel® Xeon® processor L5609 (4C/4T, 1.86 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: No, 4.8 GT/s, Mem bus: 800 MHz, 40 W)	
	Intel® Xeon® processor L5630 (4C/8T, 2.13 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 1/1/2/2, 5.86 GT/s, Mem bus: 1066 MHz, 40 W)	
	Intel® Xeon® processor L5640 (6C/12T, 2.26 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 2/2/3/3/4/4, 6.4 GT/s, Mem bus: 1333 MHz, 60 W)	
	Intel® Xeon® processor X5650 (6C/12T, 2.66 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 2/2/2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)	
	Intel® Xeon® processor X5660 (6C/12T, 2.80 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 2/2/2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)	
	Intel® Xeon® processor X5667 (4C/8T, 3.06 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)	
	Intel® Xeon® processor X5670 (6C/12T, 2.93 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 2/2/2/2/3/3, 6.4 GT/s, Mem bus: 1333 MHz, 95 W)	
	Intel® Xeon® processor X5677 (4C/8T, 3.46 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 1/1/2/2, 6.4 GT/s, Mem bus: 1333 MHz, 130 W)	
	Intel® Xeon® processor X5680 (6C/12T, 3.33 GHz, SLC: 4 x 256 KB, TLC: 12 MB, Turbo: 1/1/1/1/2/2, 6.4 GT/s, Mem bus: 1333 MHz, 130 W)	
Memory slots	12 (3 channels per CPU with 2 slots per channel = 6 DIMMs per CPU)	
Memory slot type	DIMM (DDR3)	
Memory capacity (min. - max.)	2 GB - 192 GB	
Memory protection	Advanced ECC Memory Scrubbing SDDC (only for registered DIMMs) Memory Mirroring support Hot-spare memory support	
Memory notes	Memory Mirroring with identical modules in each of 2 channels (2 modules per bank), Hot-spare or Performance mode with identical modules in all three channels (3 per bank)	

MEMORY MODULES INDEPENDENT MODE	2 GB (1 module(s) 2 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	2 GB (1 module(s) 2 GB) DDR3, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM
	2 GB (1 module(s) 2 GB) DDR3 LV, unbuffered, ECC, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (1 module(s) 8 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (1 module(s) 8 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	16 GB (1 module(s) 16 GB) DDR3, registered, ECC, 1066 MHz, PC3-8500, DIMM
MEMORY MODULES MIRRORED MODE	4 GB (2 module(s) 2 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (2 module(s) 4 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	8 GB (2 module(s) 4 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	16 GB (2 module(s) 8 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	16 GB (2 module(s) 8 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	32 GB (2 module(s) 16 GB) DDR3, registered, ECC, 1066 MHz, PC3-8500, DIMM
MEMORY MODULES SPARE OR PERFORMANCE MODE	6 GB (3 module(s) 2 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	12 GB (3 module(s) 4 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	12 GB (3 module(s) 4 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	24 GB (3 module(s) 8 GB) DDR3, registered, ECC, 1333 MHz, PC3-10600, DIMM
	24 GB (3 module(s) 8 GB) DDR3 LV, registered, ECC, 1333 MHz, PC3-10600, DIMM
	48 GB (3 module(s) 16 GB) DDR3, registered, ECC, 1066 MHz, PC3-8500, DIMM
INTERFACES	
USB ports	7 x USB 2.0 (3x front, 3x rear, 1x internal)
Graphics (15-pin)	2 x VGA (1x front)
Serial connection	1 x serial RS-232-C (9-pin), usable for iRMC or system or shared
LAN / Ethernet (RJ-45)	2 x Gbit/s Ethernet
Service LAN (RJ45)	1 x dedicated service LAN port for iRMC S2 (10/100 Mbit/s) Service LAN traffic can be switched to shared onboard Gbit LAN port
ONBOARD OR INTEGRATED CONTROLLER	
RAID Controller	Integrated RAID 0/1 or RAID 5/6 controller for SAS base units (option, occupies one PCIe slot). See under Components RAID controller
SATA Controller	ICH10R, 4-port for RAID 0,1,10 (for 4x 2.5-inch HDD´s only) , 1 x SATA channel for DVD
LAN Controller	Intel® 82575EB , 2 x 10/100/1000 Mbit/s Ethernet (I/O acceleration), VT-c (I/O acceleration and VMDq), PXE boot via LAN from PXE server, iSCSI boot (also diskless) via onboard LAN
Remote Management Controller	Integrated Remote Management Controller (iRMC S2, 32 MB attached memory incl. graphics controller),
Trusted Platform Module (TPM)	optional TPM
SLOTS	
PCI-Express 2.0 x4 (mech. x8)	1 x low profile
PCI-Express 2.0 x8	2 x (1 x full height or low profile or 1 x low profile)
Slot Notes	PCI-Express Gen2 x 4, only for modular RAID controller
DRIVE BAYS	
Hard disk bay configuration	6 x 2.5-inch or 8 x 2.5-inch
Accessible drive bays	1 x 5.25/0.5-inch for CD/RW-DVD (only for option 6x 2.5-inch HD)
GENERAL SYSTEM INFORMATION	
Number of fans	12
Fan configuration	redundant hot plug fans (5+1 redundancy)
Fan notes	12 fans (2x6 double fans)
OPERATING PANEL	
Operating buttons	On/off switch Reset button NMI button ID button

OPERATING PANEL	
Status LEDs	Identification (blue) Hard disks access (green) Power (amber / green) CSS (yellow) At system rear side: Global error (amber) Identification (blue) LAN connection (green) LAN speed (green / yellow) CSS (yellow) PSU status (green/ amber)
BIOS	
BIOS features	ROM based setup utility Recovery BIOS BIOS settings save and restore Local BIOS update from USB device Online update tools for main Windows and Linux versions Local and remote update via ServerView Update Manager SMBIOS V2.4 Remote PXE boot support Remote iSCSI boot support
CERTIFIED OR SUPPORTED OPERATING SYSTEMS	
Certified or supported operating systems	Microsoft® Windows Server® 2008 R2 (containing Hyper-V) Microsoft® Windows Server® 2008 Microsoft® Windows Server® 2003 Novell SUSE Linux Enterprise Server Red Hat Enterprise Linux VMware vSphere 4.0 VMware vSphere 4.1 Note: Support of other Linux derivatives on demand
Operating system release link	http://docs.ts.fujitsu.com/dl.aspx?id=a9e600b9-e4cb-4f48-aa41-632f69058421
SERVER MANAGEMENT	
Standard	ASR&R Automatic Server Recovery and Restart PDA Prefailure Detection and Anaylsis ServerView Suite: SV Installation Manager SV Operation Manager SV RAID Manager SV Update Management SV Power Management SV Agents Online update packages for BIOS, firmware drivers and ServerView Agents ServerView Integration solutions for Microsoft SMS, MOM, SCOM, SCCM and Altiris Deployment Solution ServerView Deployment Manager (fully functional 30-day trial version)
Option	ServerView Integration for Tivoli TEC®, Tivoli NetView, HP NNM and HP Operations Manager iRMC S2 Advanced Pack
Server Management notes	Regarding Operating System dependencies for ServerView Suite Software Products see dedicated Product Data sheets.
DIMENSIONS / WEIGHT	
Rack (W x D x H)	482.6 mm (Bezel) / 431mm (Body) x 765 x 43 mm mm
Mounting Depth Rack	993 mm
Height Unit Rack	1 U
19” rackmount	Yes
Mounting Cable depth rack	200 mm (1000 mm Rack recommended)
Weight	up to 17 kg
Weight notes	Actual weight may vary depending on configuration
Rack integration kit	Rack integration kit as option
ENVIRONMENTAL	
Noise emission	Measured according to ISO 7779 and declared according to ISO 9296

ENVIRONMENTAL	
Sound pressure (LpAm)	49 dB(A) (idle) / 57 dB(A) (operating)
Sound power (LWAd; 1B = 10dB)	6.6 B (idle) / 7.4 B (operating)
Operating ambient temperature	10 - 35°C
Operating relative humidity	10 - 85 % (non condensing)
Operating environment	FTS 04230 – Guideline for Data Center (installation locations)
Operating environment Link	http://docs.ts.fujitsu.com/dl.aspx?id=e4813edf-4a27-461a-8184-983092c12dbe

ELECTRICAL VALUES	
Power supply configuration	hot-plug power supply as standard, redundancy as option (1 + 1 redundancy)
Max. output of single power supply	450 W 770 W
Power supply efficiency	92% (450 W) 89% (770 W)
Hot-plug power supply redundancy	Yes
Rated voltage range	100 - 127 V / 200 - 240 V
Rated frequency range	47 - 63 Hz
Rated current max.	8.0A / 4.0A
Active power (min. configuration)	178 W
Active power (max. configuration)	549 W
Apparent power (max. configuration)	557 VA
Heat emission	1976.4 kJ/h (1873.3 BTU/h)
Power Supply Notes	Power Management for 450W PSU: Power Safeguard adapts system performance in case the wattage exceeds supply limits. 450W Power Supply with 92% efficiency (at 50% load) fulfills CSCI “GOLD”

ENERGY STAR ® 1.0 CERTIFIED CONFIGURATIONS

The following products use less energy and reduce greenhouse gas emissions by meeting the strict Energy Star guidelines.

RX200 S6 E-Star Fam1

http://ts.fujitsu.com/products/standard_servers/e_efficient.html

COMPLIANCE	
Germany	GS
Europe	CE Class A *
USA/Canada	CSAc/us ULc/us ICES-003 Class A FCC Class A
Global	CB RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment)
Japan	VCCI Class A + JIS 61000-3-2
Taiwan	CNS 13438 class A
Compliance notes	There is general compliance with the safety requirements of all European countries and North America. National approvals required in order to satisfy statutory regulations or for other reasons can be applied for on request. * Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

COMPONENTS

HARD DISK DRIVES	SSD SATA, 3 Gb/s, 64 GB, SLC, hot-plug, 2.5-inch, enterprise
	SSD SATA, 3 Gb/s, 32 GB, SLC, hot-plug, 2.5-inch, enterprise
	HDD SATA, 3 Gb/s, 500 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SATA, 3 Gb/s, 160 GB, 7200 rpm, hot-plug, 2.5-inch, business critical
	HDD SAS, 6 Gb/s, 300 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 146 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 146 GB, 10000 rpm, hot-plug, 2.5-inch, enterprise
	HDD SAS, 6 Gb/s, 73 GB, 15000 rpm, hot-plug, 2.5-inch, enterprise
Hard disk notes	One Gigabyte equals one billion bytes, when referring to hard disk drive capacity. Accessible capacity may vary, also depending on used software
OPTICAL DRIVES	Blu-ray Disc™ Combo Drive, (2x BD-ROM; 8x DVD; 24x CD), slimline, SATA I
	DVD Super Multi, (8xDVD/DVD+RW, 6xDVD-RW, 5xDVD-RAM; 24xCD/CD-R, 16xCD-RW), slimline, SATA I
SCSI / SAS CONTROLLER	SCSI Ctrl. 320 MB 1x int /1x ext
	SAS Ctrl. 3 Gb 4 ports int. / 4 ports ext.
RAID CONTROLLER	RAID 5/6 Ctrl., HDD SAS 6 Gb, LSI , 8 ports ext. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, optional BBU (based on LSI SAS2108)
	Integrated RAID 5/6 Ctrl., HDD SAS 6 Gb, Fujitsu , 8 ports int. RAID level: 0, 1, 10, 5, 50, 6, 60, 512 MB Cache, optional BBU (based on LSI SAS2108)
	Integrated RAID 0/1 Ctrl., SAS/SATA 6 Gb, Fujitsu , 8 ports int. RAID level: 0, 1, 10, no BBU support (based on LSI SAS2008)
	Integrated RAID 0/1 Ctrl., SAS/SATA 3 Gb, 4 ports int. RAID level: 0, 1, 1E, no BBU support , for internal SAS tapes (based on LSI 1064e)
FIBRE CHANNEL CONTROLLER	Fibre Channel Host Bus Adapter 2 x 4 Gb Emulex LPe11002 MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 4 Gb Emulex LPe1150 MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 4 Gb Qlogic QLE2460 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 4 Gb Qlogic QLE2462 MMF LC-style
	Fibre Channel Host Bus Adapter 2 x 8 Gb Emulex LPe12002 MMF LC-style
	Fibre Channel Host Bus Adapter 1 x 8 Gb Emulex LPe1250 MMF LC-style
LAN CONTROLLER	Converged Network Adapter 2 x 10 Gb Emulex OCe10102
	Ethernet Ctrl. 1 x 1 Gb Intel® Gigabit CT Desktop Adapter
	Ethernet Ctrl. 1 x 1 Gb Intel® PRO/1000 PF Server Adapter
	Ethernet Ctrl. 1 x 1 Gb Intel® PRO/1000 PT Server Adapter
	Ethernet Ctrl. 2 x 10 Gb Intel® Ethernet Server Adapter X520-DA2
	Ethernet Ctrl. 2 x 1 Gb Fujitsu Eth Ctrl 2x1Gbit PCIe x4 D2735 Cu
	Ethernet Ctrl. 2 x 1 Gb Intel® PRO/1000 PT Dual Port Server Adapter
	Ethernet Ctrl. 4 x 1 Gb Fujitsu Eth Ctrl 4x1Gbit PCIe x4 D2745 Cu
	Ethernet Ctrl. 4 x 1 Gb Intel® PRO/1000 PT Quad Port Server Adapter
	InfiniBand HCA 1 x 40 Gb Mellanox
	InfiniBand HCA 2 x 40 Gb Mellanox
RACK INFRASTRUCTURE	Cable Arm 1U for PRIMECENTER- and 3rd-party racks
	Rackmount kit full extraction (760mm), tool less mounting
	Rackmount kit partly extraction (524mm), tool less mounting

WARRANTY	
Standard Warranty	3 years
Service level	On-site Service (depending on country)
MAINTENANCE AND SUPPORT SERVICES - THE PERFECT EXTENSION	
Recommended Service	7x24, Onsite Response Time: 4h - For locations outside of EMEA please contact your local Fujitsu partner.
Spare Parts availability	5 years

WARRANTY

Service Weblink	http://ts.fujitsu.com/Supportservice

FUJITSU PLATFORM SOLUTIONS

In addition to Fujitsu PRIMERGY RX200 S6, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products
www.fujitsu.com/global/services/computing/

Software
www.fujitsu.com/software/

MORE INFORMATION

Learn more about Fujitsu PRIMERGY RX200 S6, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website. http://ts.fujitsu.com/Primergy

FUJITSU GREEN POLICY INNOVATION

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

COPYRIGHTS

All rights reserved, including intellectual property rights. Changes to technical data reserved. Delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded.
Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.
For further information see http://ts.fujitsu.com/terms_of_use.html
Copyright © Fujitsu Technology Solutions

DISCLAIMER

Technical data are subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner

CONTACT

FUJITSU LIMITED
Mies-van-der-Rohe-Straße 8
80807 München
Germany
Website: www.ts.fujitsu.com
2010-10-06 CE-EN